



RECEIVED

AUG 28 2002

64-98.APP
SEQUENCE LISTING

TECH CENTER 1600/2900

<110> Aebersold, Rudolf H.
Gelb, Michael H
Gygi, Steven
Scott, C R
Turecek, Frantisek
Gerber, Scott A
Rist, Beate

<120> Rapid Quantitative Analysis of Proteins or Protein
Function in Complex Mixture

<130> 64-98A

<140> Not assigned

<141> 2001-04-20

<150> 09/383,062

<151> 1999-08-25

<150> 60/097,788

<151> 1998-08-25

<160> 64

<170> PatentIn Ver. 2.0

<210> 1

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Heptapeptide
motif found in substrates for glycosylation

<400> 1

Tyr Gln Ser Asn Ser Thr Met
1 5

<210> 2

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Test peptide

<400> 2

Lys Ala Leu Cys Ser Glu Lys
1 5

<210> 3

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Test peptide

<400> 3
Lys Cys Glu Val Phe Arg
1 5

<210> 4
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 4
Lys Leu Asp Gln Trp Leu Cys Glu Lys
1 5

<210> 5
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 5
Lys Phe Leu Asp Asp Asp Leu Thr Asp Asp Ile Met Cys Val Lys
1 5 10 15

<210> 6
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 6
Lys Asp Asp Gln Asn Pro His Ser Ser Asn Ile Cys Asn Ile Ser Cys
1 5 10 15

Asp Lys

<210> 7
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Test peptide

<400> 7
Lys Gly Tyr Gly Gly Val Ser Leu Pro Glu Trp Val Cys Thr Thr Phe
1 5 10 15

His Thr Ser Gly Tyr Asp Thr Gln Ala Ile Val Gln Asn Asn Asp Ser
20 25 30

Thr Glu Tyr Gly Leu Phe Gln Ile Asn Asn Lys
Page 2

35

40

<210> 8
 <211> 6
 <212> PRT
 <213> bovine

<220>
 <221> VARIANT
 <222> (3)
 <223> C at position 3 is ICAT- labeled cysteinyl residue

<400> 8
 Ala Leu Cys Ser Glu Lys
 1 5

<210> 9
 <211> 13
 <212> PRT
 <213> bovine

<220>
 <221> VARIANT
 <222> (11)
 <223> C at position 11 is ICAT-labeled cysteinyl residue.

<400> 9
 Phe Leu Asp Asp Leu Thr Asp Asp Ile Met Cys Val Lys
 1 5 10

<210> 10
 <211> 10
 <212> PRT
 <213> chicken

<220>
 <221> VARIANT
 <222> (8)
 <223> C at position 8 is ICAT-labeled cystenyl residue.

<400> 10
 Ala Asp His Pro Phe Leu Phe Cys Ile Lys
 1 5 10

<210> 11
 <211> 12
 <212> PRT
 <213> chicken

<220>
 <221> VARIANT
 <222> (10)
 <223> C at position 10 is ICAT labeled cysteinyl residue.

<400> 11
 Tyr Pro Ile Leu Pro Glu Tyr Leu Gln Cys Val Lys
 1 5 10

<210> 12
 <211> 8
 <212> PRT
 <213> E coli

<220>
 <221> VARIANT
 <222> (5)
 <223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 12
 Leu Thr Ala Ala Cys Phe Asp Arg
 1 5

<210> 13
 <211> 13
 <212> PRT
 <213> E coli

<220>
 <221> VARIANT
 <222> (5)
 <223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 13
 Ile Gly Leu Asn Cys Gln Leu Ala Gln Val Ala Glu Arg
 1 5 10

<210> 14
 <211> 17
 <212> PRT
 <213> E coli

<220>
 <221> VARIANT
 <222> (14)
 <223> C at position 14 is ICAT-labeled cysteinyl residue.

<400> 14
 Ile Ile Phe Asp Gly Val Asn Ser Ala Phe His Leu Trp Cys Asn Gly
 1 5 10 15

Arg

<210> 15
 <211> 9
 <212> PRT
 <213> bovine

<220>
 <221> VARIANT
 <222> (6)
 <223> C at position 6 is ICAT-labeled cysteinyl residue.

<400> 15
 Trp Glu Asn Gly Glu Cys Ala Gln Lys

1

5

<210> 16
 <211> 14
 <212> PRT
 <213> bovine

<220>
 <221> VARIANT
 <222> (12)
 <223> C at position 12 is ICAT-labeled cysteinyl
 residue.

<400> 16
 Leu Ser Phe Asn Pro Thr Gln Leu Glu Glu Gln Cys His Ile
 1 5 10

<210> 17
 <211> 14
 <212> PRT
 <213> rabbit

<220>
 <221> VARIANT
 <222> (13)
 <223> C at position 13 is ICAT-labeled cysteinyl
 residue.

<400> 17
 Val Pro Thr Pro Asn Val Ser Val Val Asp Leu Thr Cys Arg
 1 5 10

<210> 18
 <211> 17
 <212> PRT
 <213> rabbit

<220>
 <221> VARIANT
 <222> (1)..(17)
 <223> C at positions 7 and 11 are ICAT-labeled cysteinyl
 residues.

<400> 18
 Ile Val Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu Ala
 1 5 10 15

Lys

<210> 19
 <211> 15
 <212> PRT
 <213> rabbit

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.
 Page 5

64-98.APP

<400> 19
Ile Cys Gly Gly Trp Gln Met Glu Glu Ala Asp Asp Trp Leu Arg
1 5 10 15

<210> 20
<211> 16
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (2)
<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 20
Thr Cys Ala Tyr Thr Asn His Thr Val Leu Pro Glu Ala Leu Glu Arg
1 5 10 15

<210> 21
<211> 16
<212> PRT
<213> rabbit

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 21
Trp Leu Val Leu Cys Asn Pro Gly Leu Ala Glu Ile Ile Ala Glu Arg
1 5 10 15

<210> 22
<211> 12
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (4)
<223> C at position 4 is ICAT-labeled cysteinyl residue.

<400> 22
Lys His Asn Cys Leu His Glu Pro His Met Leu Lys
1 5 10

<210> 23
<211> 21
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 23
Tyr Ser Gly Val Cys His Thr Asp Leu His Ala Trp His Gly Asp Trp
Page 6

043

1 5
Pro Leu Pro Val Lys
20

<210> 24
<211> 11
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)..(2)
<223> C at positions 1 and 2 are ICAT-labeled cysteinyl residues.

<400> 24
Cys Cys Ser Asp Val Phe Asn Gln Val Val Lys
1 5 10

<210> 25
<211> 21
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 25
Tyr Ser Gly Val Cys His Thr Asp Leu His Ala Trp His Gly Asp Trp
1 5 10 15

Pro Leu Pro Thr Lys
20

<210> 26
<211> 11
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)
<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 26
Cys Ser Ser Asp Val Phe Asn His Val Val Lys
1 5 10

<210> 27
<211> 20
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (14)

243

64-98.APP

<223> C at position 14 is ICAT-labeled cysteinyl residue.

<400> 27

Thr Phe Glu Val Ile Asn Pro Ser Thr Glu Glu Glu Ile Cys His Ile
1 5 10 15

Tyr Glu Gly Arg
20

<210> 28

<211> 12

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (9)

<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 28

Ser Glu His Gln Val Glu Leu Ile Cys Ser Tyr Arg
1 5 10

<210> 29

<211> 12

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (5)

<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 29

Tyr Arg Pro Asn Cys Pro Ile Ile Leu Val Thr Arg
1 5 10

<210> 30

<211> 25

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (2)

<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 30

Asn Cys Thr Pro Lys Pro Thr Ser Thr Thr Glu Thr Val Ala Ala Ser
1 5 10 15

Ala Val Ala Ala Val Phe Glu Gln Lys
20 25

<210> 31

<211> 19

<212> PRT

<213> yeast

<220>
 <221> VARIANT
 <222> (17)
 <223> C at position 17 is ICAT-labeled cysteinyl
 residue.

<400> 31
 Ser Ile Ala Pro Ala Tyr Gly Ile Pro Val Val Leu His Ser Asp His
 1 5 10 15
 Cys Ala Lys

<210> 32
 <211> 6
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (5)
 <223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 32
 Glu Gln Val Gly Cys Lys
 1 5

<210> 33
 <211> 24
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (9)
 <223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 33
 Leu Thr Gly Ala Gly Trp Gly Gly Cys Thr Val His Leu Val Pro Gly
 1 5 10 15
 Gly Pro Asn Gly Asn Ile Glu Lys
 20

<210> 34
 <211> 13
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (11)
 <223> C at position 11 is ICAT-labeled cysteinyl
 residue.

<400> 34
 His His Ile Pro Phe Tyr Glu Val Asp Leu Cys Asp Arg
 1 5 10

<210> 35
 <211> 6
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 35
 Asp Cys Val Thr Leu Lys
 1 5

<210> 36
 <211> 18
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (3)
 <223> C at position 3 is ICAT-labeled cysteinyl residue.

<400> 36
 Leu Trp Cys Thr Gln His His Glu Pro Glu Val Ala Leu Asp Gln Ser
 1 5 10 15

Leu Lys

<210> 37
 <211> 18
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT labeled cysteinyl residue.

<400> 37
 Ile Cys Ser Val Asn Leu His Gly Asp His Thr Phe Ser Met Glu Gln
 1 5 10 15

Met Lys

<210> 38
 <211> 6
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 38

Ile Cys Ser Gln Leu Lys
 1 5

<210> 39
 <211> 9
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (5)
 <223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 39
 Gly Gly Thr Gln Cys Ser Ile Met Arg
 1 5

<210> 40
 <211> 30
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 40
 Asn Cys Phe Pro His His Gly Tyr Ile His Asn Tyr Gly Ala Phe Pro
 1 5 10 15

Gln Thr Trp Glu Asp Pro Asn Val Ser His Pro Glu Thr Lys
 20 25 30

<210> 41
 <211> 13
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (2)
 <223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 41
 Val Cys His Ala His Pro Thr Leu Ser Glu Ala Phe Lys
 1 5 10

<210> 42
 <211> 14
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (11)
 <223> C at position 11 is ICAT-labeled cysteinyl residue.

64-98.APP

<400> 42
Lys Gly Trp Thr Gly Gln Tyr Thr Leu Asp Cys Asn Thr Arg
1 5 10

<210> 43
<211> 10
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (5)
<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 43
Ser Val Val Leu Cys Asn Ser Thr Ile Lys
1 5 10

<210> 44
<211> 23
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (1)
<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 44
Cys Thr Gly Gly Ile Ile Leu Thr Ala Ser His Asn Pro Gly Gly Pro
1 5 10 15

Glu Asn Asp Met Gly Ile Lys
20

<210> 45
<211> 17
<212> PRT
<213> yeast

<220>
<221> VARIANT
<222> (4)
<223> C at position 4 is ICAT-labeled cysteinyl residue.

<400> 45
Leu Ser Ile Cys Gly Glu Glu Ser Phe Gly Thr Gly Ser Asn His Val
1 5 10 15

Arg

<210> 46
<211> 10
<212> PRT
<213> yeast

<220>
<221> VARIANT

A43

<222> (3)

<223> C at position 3 is ICAT-labeled cysteinyl residue.

<400> 46

Ile	Pro	Cys	Leu	Ala	Asp	Ser	His	Pro	Lys
1				5					10

<210> 47

<211> 17

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (1)

<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 47

Cys	Ile	Asn	Leu	Ser	Ala	Glu	Lys	Glu	Pro	Glu	Ile	Phe	Asp	Ala	Ile
1				5					10					15	

Lys

<210> 48

<211> 12

<212> PRT

<213> Yeast

<220>

<221> VARIANT

<222> (1)

<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 48

Cys	Ala	Tyr	Pro	Ile	Asp	Tyr	Ile	Pro	Ser	Ala	Lys
1				5					10		

<210> 49

<211> 23

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (20)

<223> C at position 20 is ICAT-labeled cysteinyl residue.

<400> 49

Ile	Val	Glu	Glu	Pro	Thr	Ser	Lys	Asp	Glu	Ile	Trp	Trp	Gly	Pro	Val
1				5					10					15	

Asn	Lys	Pro	Cys	Ser	Glu	Arg
			20			

<210> 50

<211> 12

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (9)

<223> C at position 9 is ICAT-labeled cysteinyl residue.

<400> 50

Ala Leu Val His His Tyr Glu Glu Cys Ala Glu Arg
1 5 10

<210> 51

<211> 14

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (2)

<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 51

Ser Cys Gly Val Asp Ala Met Ser Val Asp Asp Leu Lys Lys
1 5 10

<210> 52

<211> 24

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (8)

<223> C at position 8 is ICAT-labeled cysteinyl residue.

<400> 52

His Pro Glu Met Leu Glu Asp Cys Phe Gly Leu Ser Glu Glu Thr Thr
1 5 10 15

Thr Gly Val His His Leu Tyr Arg
20

<210> 53

<211> 11

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (2)

<223> C at position 2 is ICAT-labeled cysteinyl residue.

<400> 53

Glu Cys Ile Asn Ile Lys Pro Gln Val Asp Arg
1 5 10

<210> 54

<211> 25

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (14)

<223> C at position 14 is ICAT-labeled cysteinyl residue.

<400> 54

Gly Phe His Ile His Glu Phe Gly Asp Ala Thr Asn Gly Cys Val Ser
1 5 10 15

Ala Gly Pro His Phe Asn Pro Phe Lys
20 25

<210> 55

<211> 9

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (5)

<223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 55

Arg Gly Asn Val Cys Gly Asp Ala Lys
1 5

<210> 56

<211> 6

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (1)

<223> C at position 1 is ICAT-labeled cysteinyl residue.

<400> 56

Cys Gly Gly Ile Asp Lys
1 5

<210> 57

<211> 20

<212> PRT

<213> yeast

<220>

<221> VARIANT

<222> (8)

<223> C at position 8 is ICAT-labeled cysteinyl residue.

<400> 57

Phe Val Pro Ser Lys Pro Met Cys Val Glu Ala Phe Ser Glu Tyr Pro
1 5 10 15

Pro Leu Gly Arg
20

<210> 58
 <211> 20
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (19)
 <223> C at position 19 is ICAT-labeled cysteinyl
 residue.

<400> 58
 Ile Pro Ile Phe Ser Ala Ser Gly Leu Pro His Asn Glu Ile Ala Ala
 1 5 10 15
 Gln Ile Cys Arg
 20

<210> 59
 <211> 10
 <212> PRT
 <213> yeast

<220>
 <221> VARIANT
 <222> (5)
 <223> C at position 5 is ICAT-labeled cysteinyl residue.

<400> 59
 His Tyr Ser Leu Cys Ser Ala Ser Thr Lys
 1 5 10

<210> 60
 <211> 15
 <212> PRT
 <213> rabbit

<220>
 <221> VARIANT
 <222> (13)
 <223> C at position 13 is ICAT-labeled cysteinyl
 residue.

<400> 60
 Arg Val Pro Thr Pro Asn Val Ser Val Val Asp Leu Thr Cys Arg
 1 5 10 15

<210> 61
 <211> 19
 <212> PRT
 <213> Streptomyces lividans

<400> 61
 Glu Leu Gly Lys Pro Val Leu Thr Ala Asn Gln Val Thr Ile Trp Glu Gly
 1 5 10 15

Leu Arg

<210> 62
 <211> 20
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown Organism: Unidentified

<400> 62
 Asn Ile Ala Asn Pro Asn Val Tyr Thr Glu Thr Leu Thr Ala Ala Thr Val
 1 5 10 15

Cys Thr Ile
 20

<210> 63
 <211> 20
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown Organism: Unidentified

<400> 63
 Tyr Leu Ala Leu Leu Pro Ser Asp Ala Glu Gly Pro His Gly Gln Phe Val
 1 5 10 15

Thr Asp Lys
 20

<210> 64
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 64
 Leu Ala Leu Leu Val Leu Val Ala Pro Ala Met Ala Ala Gly Asn Gly Glu
 1 5 10 15

Asp Leu Arg Asn
 20